REMARKS

The applicant has carefully considered the official action dated January 25, 2006, and the references it cites. In the official action, claims 38-47, 49-55, 57-71, and 77-84 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description reequirement; claims 61-63, 69, 70, 72, 74, 75, 77, 79-82, 84, 92, 96-98, 101, 103, 104, 108, and 109 were rejected under 35 U.S.C. § 102(b) as anticipated by Jeuniaux et al.; and claims 38, 39, 41-47, 49-55, 57-60, 64-68, 71, 73, 76, 78, 83, 85, 86, 88-91, 93, 94, 95, 99, 100, 102, 105-107, and 110-117 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jeuniaux et al.

To reduce the number of issues for consideration and to advance this application toward allowance, the applicant respectfully requests cancellation of claims 61-71 and 85-91 without prejudice and reserves the right to pursue those claims via a continuing application. In addition, the applicant has amended claim 54 to correct a minor typographical error. Accordingly, claims 38, 39, 41-47, 49-55, 57-60, 72-84, and 92-117 are pending and at issue in this application, of which claims 38, 46, 54, 61, 72, 77, 85, 92, 101, 109, and 113 are independent. In view of the foregoing amendments and the following remarks, the applicant respectfully traverses the rejections and submits that all pending claims are in condition for allowance. Favorable reconsideration is respectfully requested.

The Rejections Under 35 U.S.C. § 112, First Paragraph

The applicant respectfully submits that claims 38-47, 49-55, 57-60, and 77-84 comply with the written description requirement of 35 U.S.C. § 112, first paragraph. Independent claims 38, 46, 54, and 77 recite wave heights. The applicant respectfully submits that the application describes wave heights to support the claims in compliance with the written

description requirement of 35 U.S.C. § 112, first paragraph. Specifically, the application describes calculating values representative of the wave height of the material using the language, "[t]he system 100 may then calculate the peak value (e.g., the overall *wave height*) for each of the zones stored in the buffer (block 1620)." *See Specification*, page 35, ¶ 92. (emphasis added). Accordingly, the applicant respectfully submits that claims 38-47, 49-55, 57-60, and 77-84 are in compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, and respectfully requests withdrawal of the § 112 rejection of these claims.

The Rejections Under 35 U.S.C. § 102(b)

The applicant respectfully submits that independent claim 72 is allowable over the art of record. Independent claim 72 is directed to a system for conditioning a moving material that includes, *inter alia*, a first sensor separated by a first distance from a surface of a moving material, a second sensor separated by a second distance from the surface of the moving material, and a controller communicatively coupled to the first and second sensors and configured to *compare* the first distance to the second distance. Although Jeuniaux et al. describe three sensors (5,6,7) that take readings of heights y_a, y_b, and y_c (*see Jeuniaux et al.*, FIG. 1), Jeuniaux et al. do not teach or suggest a controller communicatively coupled to first and second sensors and configured to *compare* the first distance to the second distance. In the final official action, the examiner contends that the equations shown in column five of *Jeuniaux et al.* constitute a comparison. The applicant respectfully disagrees. Instead, Jeuniaux et al. teach determining a shape and planarity of a fiber using the heights y_a, y_b, and y_c. *See Jeuniaux et al.*, col. 5, ll. 54-56.

Jeuniaux et al. do not teach or suggest comparing a first distance to a second distance, nor would it be necessary to perform such a comparison. The applicant respectfully submits that only a misconstruction of comparison could lead to the conclusion that Jeuniaux et al. teach comparing a first distance to a second distance. The Federal Circuit has held that during patent prosecution a claim term should be given the broadest reasonable interpretation that is consistent with an applicant's specification and the understanding of those having ordinary skill in the art. *See* MPEP § 2111 (citing *In re Cortright*, 165 F.3d 1353, 1359) and *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). In *In re Cortright*, the applicant described a method for treating baldness. 165 F.3d at 1355. Claim 1 of the In re Cortright patent application recited, "to restore hair growth." *Id.* The examiner and the board of appeals interpreted the language "to restore hair growth" to mean returning the hair to its original state or to a full head of hair. *Id.* at 1356. The Federal Circuit rejected the interpretation of the examiner and the board of appeals. *Id.* at 1358. The Federal Circuit looked to the applicant's specification and to three patents in the analogous arts to find that the language "to restore hair growth" required only partial hair growth. *Id.* Accordingly, the Patent Office should not construe a term so broadly as to conflict with the meaning that would be understood in the analogous art. *Id.*

The applicant respectfully submits that the use of the term "compare" in the applicant's specification requires an examination of compared values, which is consistent with the meaning understood in the art. Specifically, the applicant describes in the instant application:

> ...the system 1000 may compare the average deviations of the zones to each other ... *to determine if the individual zones are at the desired target condition.* For example, if the desired target condition is a substantially flat condition, then the average deviations for each of the

> zones may be compared to each other (*i.e., to determine the degree of similarity between the zones*) ...

See Specification, paragraph [0078].

Compare is a term of the technical arts and a term well known generally. Accordingly, it is appropriate to look at the meaning of the term "compare" as set forth by a technical dictionary and a general dictionary. According to the IEEE 100: The Authoritative Dictionary of IEEE Standards and Terms, the term "compare means "*[t]o examine* a quantity for the purpose of determining its relationship to zero" or "*[t]o examine* two items to determine their relative magnitudes." *IEEE 100: The Authoritative Dictionary of IEEE Standards and Terms*, 7th Edition, Standards Information Network IEEE Press, 2000 (Emphasis added). According to Webster's Third New International Dictionary, the term "compare" means "*to examine* the character or qualities of ... two or more ... things." Webster's Third New International Dictionary (Unabridged), Merriam-Webster, 2002 (Emphasis added). The applicant's use of the term "compare" is consistent with the technical IEEE dictionary and Webster's dictionary as the applicant teaches examining one zone in view of a different zone by comparing distance values of the two different zones to determine if the individual zones are at the desired target condition.

The applicant respectfully submits that Jeuniaux et al. do not teach comparing a first distance to a second distance because Jeuniaux et al. do not teach examining two items to determine their relative magnitudes or examining the character or qualities of the two items. Instead, Jeuniaux et al. teach determining values representing the curvature of a fiber by manipulating (e.g., mathematically combining) height values to get a result. However, Jeuniaux et al. do not teach performing any type of examination of height values. Specifically, the equations set forth in Jeuniaux et al., column 5 do not constitute an

examination of relationships between height values. Instead, the equations described by Jeuniaux et al. combine or merge height values to, for example, obtain the curvature of a material fiber. Thus, independent claim 72 is not anticipated by Jeuniaux et al. because Jeuniaux et al. do not teach or suggest each and every element of claim 72 including a controller communicatively coupled to the first and second sensors and configured to *compare* the first distance to the second distance, as recited in claim 72. Accordingly, the applicant respectfully submits that independent claim 72 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 77 is also allowable over the art of record. Independent claim 77 is directed to a method of leveling strip material and recites, *inter alia*, generating an electrical signal to cause an adjustment of a load applied to the strip material in response to *comparing* the first and second wave height values. Jeuniaux et al. do not teach or suggest comparing first and second wave height values and, thus, Jeuniaux et al. do not teach each and every element of claim 77. Accordingly, the applicant respectfully submits that independent claim 77 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 92 is also allowable over the art of record. Independent claim 92 is directed to an apparatus to condition a material that includes, *inter alia*, a controller configured to generate an electrical signal in response to a *comparison* of a first height value and a second height value to condition the material. Jeuniaux et al. do not teach or suggest a comparison of a first height value and a second height value, much less a controller configured to generate an electrical signal in response to a *comparison* of a first height value and a second height value to condition the material.

Thus, Jeuniaux et al. do not teach each and every element recited in independent claim 92. Accordingly, the applicant respectfully submits that independent claim 92 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 101 is also allowable over the art of record. Independent claim 101 is directed to a method of modifying a condition of a material and recites, *inter alia*, adjusting a load applied to a first zone of a material based on a *comparison* of first and second deviation values. Jeuniaux et al. do not teach or suggest adjusting a load applied to a first zone of a material based on a *comparison* of first and second deviation values. Although Jeuniaux et al. teach communicating fiber shape and planarity data (e.g., Y(l) – shape, k(l) – curvature) to "[an] installation for regulating the rolling conditions ... to permit these defects to be remedied," Jeuniaux et al. do not teach how the "installation for regulating the rolling conditions" uses the fiber shape and planarity data to remedy defects. *See Jeuniaux et al.*, col. 7, ll. 62-67 and col. 8, ll. 1-4. Therefore, Jeuniaux et al. do not teach each and every limitation recited in independent claim 101. Accordingly, the applicant respectfully submits that independent claim 101 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 109 is also allowable over the art of record at least for the reasons set forth above in connection with independent claim 101. Accordingly, independent claim 109 and all claims dependent thereon are in condition for allowance.

The Rejections Under 35 U.S.C. § 103(a)

The applicant respectfully submits that independent claim 38 is allowable over the art of record. Independent claim 38 is directed to a method for modifying a condition of a

material and recites, *inter alia*, acquiring travel length information associated with the material as the material moves. As the examiner concedes in the official action, Jeuniaux et al. do not teach obtaining a travel length of a material as the material moves. *See Final Office Action*, pg. 3, ¶ 2 (Jan. 25, 2006). However, the examiner looks to general knowledge in the art and contends that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Jeuniaux et al. teachings by using acquired travel length information instead of a speed value to specify a location on the material and, thus, implement the method described in claim 38. *See Id.*, pg. 4, ¶ 1. The applicant respectfully disagrees.

The applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art to modify the Jeuniaux et al. teachings to use acquired travel length information instead of a speed value. However, even if Jeuniaux et al. were modified to acquire travel length information, Jeuniaux et al. would nonetheless fail to teach each and every element recited in independent claim 38. Specifically, Jeuniax et al. do not teach determining a difference between a first wave height of a material in a first longitudinal zone and a second wave height of the material in a second longitudinal zone as recited in claim 38. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03, (Citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

Here, independent claim 38 recites obtaining a plurality of sensor readings associated with a plurality of longitudinal zones along a length of the material as the material moves and determining a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the

longitudinal zones based on at least some of the plurality of sensor readings. Jeuniaux et al. do not teach determining a difference between first and second wave heights of respective longitudinal zones. Instead, Jeuniaux et al. describe using heights y_a, y_b, y_c corresponding to the same longitudinal zone and, thus, do not describe determining a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the longitudinal zones, as recited in claim 38. See *Jeuniaux et al.*, col. 7, ll. 31-35 and ll. 53-54 (three lasers 9, 10, 11 are used to project three impacts 12, 13, 14 along *one* longitudinal zone and to determine heights y_a, y_b, y_c).

The examiner appears to contend that Jeuniaux et al. inherently teaches obtaining a plurality of sensor readings associated with a plurality of longitudinal zones along a length of the material as the material moves and determining a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the longitudinal zones based on at least some of the plurality of sensor readings. Specifically, the examiner points to Jeuniaux et al., col. 7, ll. 30-67 and col. 8, ll. 1-16 and appears to contend that Jeuniaux et al. must *inherently* determine a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the longitudinal zones. The applicant respectfully disagrees.

Implementing the teachings of Jeuniaux et al., col. 8, ll. 11-27 does not necessarily require determining a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the longitudinal zones. On the contrary, Jeuniaux et al. teach using elongation ratios (A_m, A_c) to determine a planarity index (P_m). An elongation ratio (A_m) does not represent a wave height

but instead "defines the 'elongation ratio' of the fiber with respect to an undistorted fiber which would lie in the reference plane." *Jeuniaux et al.*, col. 1, ll. 41-43. Accordingly, because the teachings of Jeuniaux et al., col. 8, ll. 11-27 can be implemented using elongation ratios (A_m, A_c), Jeuniaux et al. do not necessarily determine a difference between a first wave height of the material in a first one of the longitudinal zones and a second wave height of the material in a second one of the longitudinal zones, as recited in independent claim 38. The applicant respectfully submits that Jeuniaux et al. cannot render independent claim 38 *prima facie* obvious because Jeuniaux et al. do not teach or suggest each and every claimed element. Accordingly, the applicant respectfully submits that independent claim 38 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claims 46 and 54 are also allowable over the art of record for at least the reasons provided above in connection with claim 38. Accordingly, independent claims 46 and 54 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 113 is also allowable over the art of record. Independent claim 113 is directed to a method and recites, *inter alia*, determining a peak value and dividing the peak value by a length of the first zone. The examiner has failed to establish a *prima facie* case of obviousness because no evidence has been provided to show how Jeuniaux et al. teach or suggest determining a peak value and dividing the peak value by a length of the first zone, as recited in claim 113. The applicant respectfully submits that Jeuniaux et al. is devoid of any teaching or suggestion of determining a peak value and dividing the peak value by a length of a first zone. Therefore, the prior art does not teach each and every element recited in claim 113. Accordingly, the

applicant respectfully submits that independent claim 113 and all claims dependent thereon are in condition for allowance.

In view of the foregoing, the applicant respectfully requests reconsideration of this application. If there are any remaining matters that the examiner would like to discuss, the examiner is invited to contact the undersigned representative at the telephone number set forth below.

Respectfully submitted,

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